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A GRADUATE ACTION RESEARCH COURSE

Building Educational Leadership Capacity

Through a Graduate Action Research Course

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Introduction

Educational leadership preparation programs face increased pressure to ensure graduates have the knowledge, skills, and dispositions (Barnett, 2004; Bass, 1990; Yukl, 2002) to guide schools' and districts' progress toward achievement targets. With standards-based education reform and increased P-12 accountability for student outcomes under NCLB (U.S. Department of Education, 2002) the research focus on student outcomes has thus "trickled up" from P-12 to postsecondary settings, exploring whether educational leaders have been adequately prepared for their complex responsibilities. In addition, the current ESEA reauthorization plan proposes to affirm educational leaders are "well-prepared and effective" (Klein, 2010), portending an even greater emphasis on accountability for both leadership preparation programs and school leaders.

Increasing interest in educational leadership preparation in the 1990s resulted in efforts to establish knowledge and skill standards for school leader certification and leadership preparation programs (Hoy, 1994; Thomson, 1993). The updated Interstate School Leaders Licensure Consortium (ISLLC) standards (2008)galvanized attention to educational leadership policy, intended to improve collaboration between policymakers, researchers, higher education, and practitioners. The ISLLC standards address questions about essential leadership content and instruction in preparation programs, asking, "How can schools of education effectively convey knowledge in a coherent fashion?" (CSSO, p. 5)

The standards provide guidance for higher education by outlining core concepts for leadership practice. Among other leadership capacities and behaviors, the *ISLLC Policy Standards* assert the importance of leading school improvement through processes of data collection and analysis, monitoring and evaluation of the instructional program, promotion of individual and organizational learning, and collaboration between stakeholders.   Collectively, ISLLC 2008 upholds the importance of inquiry to leadership for school improvement.

Fundamentally, inquiry is at the core of school improvement. When conducted by practitioners, educational inquiry differs from traditional academic research due to role-related and contextual factors (Corey, 1953; Lewin, 1948). Practitioner-led inquiry in schools is typically identified as action research (Sagor, 2000), described by Glickman and colleagues (2006) as a core task of instructional leadership.

Researchers question whether educational leaders are effectively prepared to lead school improvement.   The issue, according to Murphy (2007), is that universities privilege research knowledge above practice-based knowledge.   He asserts that in the absence of practice-based support in preparation programs, students create their own understandings from practice and "use stories heavily to improve their own action-oriented learning. It takes a heavy dose of academic arrogance . . . to continue to marginalize important lessons forged in the field" (p. 582).   Furthermore, Barnett (2004) reports school leadership program graduates perceive that "while national standards seem to provide an accurate description of a leader's daily activity, the preparation provided to meet those activities is lacking" (p. 121).   Finally, researchers specifically question whether leadership preparation programs include effective instruction of practice-based inquiry (Clark & Clark, 1996; Levine, 2005).

Thus, an important challenge for faculty is learning how to design and teach action research to aspiring educational leaders. The research literature contains few reports of how graduate programs teach action research (Sankaran, Hase, Dick, & Davies, 2007) and even fewer peer-reviewed articles specific to educational leadership. Addressing this gap in the research literature, this study explores how a graduate practitioner research course affects students' capacity to assume educational leadership roles. Within a participatory action research design, mixed methods are used to collect and analyze data on course design, activities, and student participation and learning.

The article is organized in four sections. First, the literature underscoring the theoretical foundation for action research, needs of adult learners, and the purposes of action research coursework in leadership preparation programs is briefly examined. Next, study parameters and methodology are

described. The third section presents study findings, while the fourth section discusses study limitations

and outlines helpful practices for participatory action research courses suggested by the findings and

current literature.

Literature Review

Action research has vied for legitimacy in higher education (Greenwood, 2007; Levin & Martin,

2007). It has survived a welter of scholarly disagreements over appropriate researcher stance,

involvement of stakeholders, methods and checks for assuring reliability and validity, and the notion of

action within a research cycle (James, Milenkiewicz, & Bucknam, 2008). Davies (Sankaran, et al., 2007)

asserts, "In my experience, the institutional setting of higher education can retard and restrict 'the

educating of action researchers'" (p. 297). Despite points of resistance, esteemed researchers have

helped develop action research theory and practice.

Theoretical Foundation for Action Research

Kurt Lewin, referred to as the "founding father of action research," is credited with coining the

term (Peters & Robinson, 1984). His work sought to bridge general social laws with problem solving in

context , asserting that "action, research, and training [are] a triangle that should be kept together"

(1948, p. 211). Lewin promoted a workshop approach for participants learning to diagnose, plan, and

evaluate problem-solving actions (1948). Schön favored a similar method, described as a "practicum . . .

designed for the task of learning a practice" (1987, p. 37), with coaches tutoring students through cycles

of reflection and action.

Action research emerged as an instrument for educational leadership through integration with

organizational development research (Argyris & Schon, 1974; Coghlan & Brannick, 2001) and systems

theory (Senge, 1994). Educational leaders have implemented action research to develop and evaluate

programs (Dick, 1998). When leaders search for ways to collect, analyze, and respond to data, action

research invites broad collaboration and problem solving (Sagor, 2000). While varying action research

models have been promoted, they commonly include participants' collaborative work through "a series

of systematic cyclical or iterative stages of fact finding, reflection and planning, strategic action, and

evaluation" (Peters & Robinson, 1984, p. 121).

Needs of Adult Learners

There does not appear to be one overarching theory of adult learning and development (Kilgore,

2001), but three adult learning concepts offer particular insights for this study, including the centrality

of experience, the power of transformative learning and reflection, and the importance of social context

and interactions.

The notion of learning through experience is not new (Glickman, Gordon, & Ross-Gordon, 2009).

However, Brown, Collins, and Duguid's (1989) theory of situated cognition explains how traditional

instruction, delivering content through abstract, decontextualized methods, may actually confound

learning. They assert that meaningful, lasting knowledge is created through experience.   Knowles'

contributions (1984) to the theory of andragogy directly connects adults' experiences to new learning.

He proposed five characteristics of adult learners, at least three of which implicate the experiences of

adult learners in creating new knowledge, theorizing that a) adults need to self-direct their learning; b)

they seek to bring their experiences to bear in new learning situations; c) they learn more readily when

engaged in solving real-life problems; d) they prefer to apply new learning immediately in real-life

contexts; and e) they are intrinsically motivated.

Another important adult learning concept is termed "transformative learning," described as

the process by which we transform our taken-for-granted frames of reference . . . to
make them more inclusive, discriminating, open, emotionally capable of change, and
reflective so that they may generate beliefs and opinions that will prove more true or
justified to guide action (Mezirow, 2000).

As frames of reference develop through experience, adults need learning experiences that cause them

to reexamine held beliefs. Being fed new information is insufficient to create changes in beliefs that will

lead to changes in action. Mezirow (1991)emphasizes that new learning is triggered through what he describes as a disorienting dilemma, creating opportunities for transformation. Further, reflection as a means of facilitating transformative learning is suggested by multiple researchers (Cranton, 1994; Schon, 1987).

Finally, adult learners benefit from learning with others, creating knowledge in action through social contexts (Schon, 1987). For adult learners, it is "the nature of the interactions among learners, the tools they use within these interactions, the activity itself, and the social context in which the activity takes place [that] shapes learning" (Hansman, 2001). Thus, learning may be facilitated by knowledgeable instructors who immerse adult learners in authentic practice to promote new learning.

Purposes of Participatory Action Research in Educational Leadership Preparation

Participatory action research coursework affords graduate students opportunities to build educational leadership capacity. Uniquely suited to adult learners, it heeds Murphy's (2007) claim that students need to explore practice-based problems and solutions. Course instructors can guide projects tailored to students' research questions and contextual factors. Developing coursework to respond to learner expertise and needs, while facilitating application to practice, addresses adult learners' characteristics and expectations (Merriam, 2001). This also increases the likelihood that students will continue applying their new learning in practice (Muth, 2000, 2002).

As course participants learn to describe problems of practice and explore possible actions in school-based teams, professional dialogue shifts from talking "about" problems to taking ownership for them. This shift reflects Freire's (1970) concept of *conscientization*, enlightening and empowering researchers through new knowledge.   Thus, participatory action research can help build a culture of inquiry, involve stakeholders in meaningful professional development, and increase participants' engagement, expertise, and professionalism (James, et al., 2008). When graduate students experience empowerment through their work with school-based teams, they begin to realize their potential for

leading inquiry and change. These experiences have been described by an action research instructor as

a "metamorphosis that borders on life changing" (Sankaran, et al., 2007).

Furthermore, leading a participatory action research project allows students to practice specific

skills critical to effective educational leadership. Beyond framing questions to investigate problems of

practice, students can learn appropriate methods for collecting and analyzing data; how to facilitate a

diverse stakeholder team; and how to increase stakeholders' capacity for engagement, leadership, and

change (James, et al., 2008; Sagor, 2000; Stringer, 2007). Participatory action research coursework can

also help aspiring leaders work with other educators on core instructional improvements in a holistic

manner, creating "a rippling of water that activates the four seas of direct assistance, professional

development, curriculum development, and group development" (Glickman, et al., 2009, p. 310).

Participatory Action Research Study Parameters and Methodology

The purpose of this study is to explore how a graduate practitioner research course affects

students' capacity to assume educational leadership roles. Within this participatory action research

study, mixed methods are used to collect and analyze data on course design, activities, and student

participation and learning.

Study Parameters

Parameters of context, participants, and course curriculum bound the study (Miles & Huberman,

1994), described in the next sections.

Program and course context . This practitioner research course is offered by a large, research

intensive Midwestern university, and is required of all K-12 Administration students seeking masters

(MA) and educational specialist (EdS) degrees. It is the final research course in a two semester

sequence, and typically concludes students' formal coursework. The first research course sets the

foundation for educational inquiry. In addition, the MA and EdS programs are delivered in cohorts. The

university encourages faculty to teach some sessions online, utilizing a hybrid model of instruction.

Course participants. Participants included the author as course instructor, and the nine students enrolled in the course. A recent doctoral graduate, I was asked by the department's program coordinator to teach the research sequence to this cohort, which met at a regional location approximately 60 miles from the main campus. While the department preferred not to have adjunct faculty teaching the research courses, they did not have sufficient tenure-track faculty to cover the courses. They knew me personally as a department graduate and were familiar with my scholarly and professional record.

The same nine students who took the first semester inquiry course also enrolled in and completed the second semester practitioner research course, forming the sample for this study. While not a diverse group in personal characteristics, they were quite diverse in their professional characteristics, summarized in Table 1. In addition, they were cohesive as a group when I joined their cohort in Fall 2008, displaying high degrees of mutual respect and support. Six of the students started their programs together, while the other three joined the cohort the previous summer. This helped build an inquiry-based culture during our two semesters together, allowing frank dialogue and uncomfortable issues to be addressed directly within the group.

Course curriculum. I met with the program coordinator to review previous course syllabi, texts, and supplemental readings. While I submitted my syllabi for review before each semester, I essentially constructed the syllabi, selected additional readings, created assignments, and delivered the course on my own. However, I also knew the coordinator was willing and available for consultation. I did contact her a few times to discuss general questions about students, grading, and plans for comprehensive exam

Table 1

Characteristics of Action Research Course Students, Winter 2009 (n=9)

Characteristic/ Student	Program Status	Educational Context	School & Position	Years of Teaching Experience	Leadership Experience	Professional Goals
Student 1	MA (SS 08)	Suburban Public	PreK-5 B & A Sup.[1]	3	1	PreK Director
Student 2	MA (SS 08)	Suburban Private	8-12 Tech Coord.	4	0	Undecided
Student 3	MA (SS 08)	Suburban Private	10-12 Eng & Sci	7	0	Private School Principal
Student 4	MA (FC)	Rural Public	K-5 Art	9	0	Elementary Principal
Student 5	MA (FC)	Urban Public	9-12 Soph. English	9 (Nat. Bd. Cert.[2])	3 (Dept. Chair)	Secondary Principal
Student 6	MA (FC)	Rural Public	K-5 5th grade	7	2 (Teacher Leader)	Elementary Principal
Student 7	EdS (FC)	Suburban Public	6-8 Special Ed.	13	3 (Dept. Chair)	Special Ed. Director
Student 8	EdS (FC)	Suburban Public	K-5 Title I	23	7 (Teacher Leader) 1 (Interim Principal)	Elementary Principal
Student 9	EdS (FC)	Rural Public	9-12 Soph. English	17	4 (Dept. Chair)	Secondary Principal/ Supt.

Notes: MA=Masters degree student; EdS=Educational Specialist degree student; SS 08=joined cohort in Summer Semester 2008; FC=final course required for degree.
[1]Before and After School Childcare Supervisor
[2]Teacher holds National Board Certification.

preparation. In addition, my work was supported and enhanced by online review of participatory

action research courses taught in other universities.

In large part, the course content and activities were co-developed with participants based on

the previous semester's experiences and in response to their emerging needs. While the course

standards and final proposal assignment did not change, I modified activities and pacing of interim

assignments to scaffold their work.

In choosing a course text, I sought a source incorporating common elements of action research (Peters & Robinson, 1984) that was user-friendly for a first-time instructor of action research and appropriate for graduate students. I wanted it to focus on school-based action research, with a strong conceptual model and supporting content. I found several good texts, but based on my review and positive experiences reported by a colleague, I chose a recent book authored by James, Milenkiewicz, and Bucknam (2008). Their model, termed "participatory action research" or PAR, is comprised of iterative cycles of diagnosis, action, measurement, and reflection. The text also has other beneficial features, including its emphasis on educational leaders' work with schools and stakeholder groups.

Methodology

The study methods were aligned to its purpose, research questions, and the PAR model (James, et al., 2008).

Questions. Based on the study purpose, I formulated the following exploratory research questions:

1. How can a graduate student course in participatory action research be designed to promote student practice of critical leadership capacities?
2. What significant challenges emerge for students and instructor in a participatory action research course?
3. What are critical student outcomes in a participatory action research course? How might student outcomes be improved?

Data Collection and Analysis. Multiple data sources are utilized in this study. Instructor-generated data sources include the course syllabus, instructional handouts, and reflective journal entries written after each class session. In addition, data is included from the nine graduate students, including their discussion board posts and responses, action research journals, and completed assignments. Data is also incorporated from their university course evaluations, received approximately three months after the course was completed.   Information on data sources is summarized in Table 2.

Table 2

Information on Data Sources

Data Source	Data Collection Events	Pages of Data	Content	Data for Research Questions (by Question Number)
Course Syllabus and Handouts	10 (documents)	32 (SS & DS)	Course design Instructional activities & scaffolds	1,2, 4
Instructor's Reflective Journal	14 (following each class)	11 SS	Intent behind course design & activities Reflections on class sessions & activities Reflections on students' responses & progress Ideas to improve course content, process, and student outcomes	1, 2, 3, 4
Instructor & Student Discussion Board Posts	7 (7 online sessions)	131 SS	Initial instructor posts to frame questions and discussion Instructors' responses to students' posts Students' responses to initial instructor post Students' responses to peers and instructor's posts	1, 2, 3, 4
Student Research Journal Entries	7 (per student, as assigned)	40 SS	Students' responses to instructor-provided journal prompts re: PAR project tasks and activities Students' free writing on unstructured journal assignments	2, 3, 4
Student Assignments (formative and summative assignments for PAR proposals)	7 (per student, as assigned)	216 (single and double-spaced)	Deconstruction of an existing PAR project Problem description for topic Literature review[1] Initial purpose statement and questions Analysis/reflections on baseline data Written Critical Friends' feedback to peers on oral proposal presentations Final PAR Proposals/Reports	1, 2, 3,4
University Course Evaluations	1 (after course completion)	9 + 2[2]	Students' quantitative ranking of course and instructor effectiveness, plus open-ended comments	1,2,3,4

Notes: SS=single-spaced; DS=double-spaced.
[1]Literature reviews began the previous semester during the basic inquiry course when they initially formulated study topics. Students continued their reviews to hone their study purpose, interventions, and methods.
[2]All 9 students completed course evaluations using scantron sheets, which included objective items and room for open-ended narrative comments. The raw data (9 forms) were sent directly to me, along with a 2 page computerized analysis of student scores on each item, including means and standard deviations.

The initial data review consisted of reading nearly 360 mostly single-spaced pages of raw data.

Next, all documents, with the exception of the university course evaluations, were uploaded into the

ATLAS TI data analysis software program. A semi-structured analytic process was used to code the data

(James, et al., 2008), using predetermined codes to sort the data into broad families and finer grained

coding of data within families into like groups. Six initial code families were formulated, including PAR

Project Design; PAR Team Collaboration; PAR Processes/Tools; Reflections on Assignments, PAR, and

Leadership; Peer-Peer Responses; and Instructor Responses. The documents were first coded by

families. Iterative reviews resulted in coding of data into 34 groups subsumed under the original six

families, with data receiving multiple codes when appropriate.   Next, the coded text was printed,

highlighted, and analyzed further for accuracy, resulting in some coding changes to ensure greater

consistency within groups.   The summary of code families, specific code groups, and frequencies are

outlined in Table 3.

After these tasks were completed, analysis of findings continued throughout the writing

process. Qualitative review did not include the university course evaluation data, which was primarily

quantitative and analyzed by the university (see Table 4). Course evaluation data are included in this

narrative where appropriate.

Validity and Reliability

Validity. Validity in primarily qualitative studies is evaluated by examining validity threats, or

alternative explanations for findings. Maxwell (2005)identifies two primary validity threats, including

researcher bias due to the researcher's "existing theory or preconceptions" (p. 106), and reactivity,

which is the researcher's influence on participants or context. Thus, a critical research design task is to

consider validity threats and incorporate methodological strategies to address them.

In this case, my bias is directly related to the study purpose and design: specifically, that the

graduate course I constructed would increase participants' capacity to assume educational leadership

Table 3

Summary of Coded Data

Families and Related Code Groups	Code Frequencies for All Data Sources
PAR Project Design & Related Codes (9)	(184)
• Problems of Practice/Initial Topics	15
• Initial Purpose Statements	11
• Initial Questions & Evaluation	10
• Topic Change/Reframing Research Questions	16
• Preparation Stage	9
• Intervention Plans	16
• Methodology	59
• Student Proposal Questions	42
• Reporting	13
PAR Processes/Tools & Related Codes (5)	(143)
• Assessment	23
• Communication skills	13
• Connecting to research literature	45
• Critical Friends Process	21
• Planning	41
PAR Team Collaboration & Related Codes (3)	(67)
• PAR Team Organization	16
• PAR Stakeholder Roles	23
• PAR Team Brainstorming & Problem solving	28
Reflections & Related Codes (6)	(161)
• Assignments	39
• Envisioning leadership	43
• PAR Issues	23
• Presentations	27
• PAR Reflections	18
• Teacher learning	11
Peer-Peer Responses & Related Codes (5)	(271)
• Encouragement and empathy	109
• Connecting peer ideas to one's own	87
• Probes/requests for peer to clarify ideas	23
• Facilitating peers' next steps	13
• Peer learning events	39
Instructor Responses & Related Codes(6)	(299)
• Encouragement	94
• Noting students' strengths and growing capacity	27
• Clarification re: students' questions and/or concerns	39
• Probes for student thinking	18
• Expanding on ideas/providing information	82
• Reframing ideas/experiences	39
Total Codes Assigned	1125

Table 4

Student Instructional Course Rating Report (N=9)

Evaluation Category and Items[1]	Mean Composite and Item Rankings[2]	Standard Deviation on Composite and Item Rankings
Instructor Involvement	<u>1.05</u>	<u>0.05</u>
• Enthusiasm for material	1.00	0.00
• Interest in teaching	1.00	0.00
• Use of examples/ personal experience to make points	1.11	0.33
• Concern with student learning	1.11	0.33
Student Interest	<u>1.36</u>	<u>0.21</u>
• Interest in learning course material	1.67	0.81
• Attentiveness in class	1.44	0.74
• Course as an intellectual challenge	1.11	0.33
• Improvement in your competence in this area due to course	1.22	0.66
Student Instructor Interaction	<u>1.03</u>	<u>0.04</u>
• Instructor's encouragement of student questions	1.00	0.00
• Instructor's receptiveness to new ideas and viewpoints	1.00	0.00
• Student's opportunity to ask questions	1.00	0.00
• Instructor stimulation of questions	1.11	0.33
Course Demands	<u>1.16</u>	<u>0.12</u>
• Appropriateness of amount of course material instructor covered	1.11	0.33
• Appropriateness of pace at which instructor covered material	1.22	0.47
• Contributions of assignments to understanding of course material	1.33	0.66
• Appropriateness of difficulty of assigned reading	1.00	0.00
Course Organization	<u>1.00</u>	<u>0.00</u>
• Instructor's ability to relate course concepts systematically	1.00	0.00
• The course organization	1.00	0.00
• Ease of taking notes on instructor's presentation	1.00	0.00
• Adequacy of outlined course direction	1.00	0.00
Course Enjoyment		
• Your general enjoyment of the course	<u>1.22</u>	<u>0.47</u>
Notes: [1]Each evaluation category contained 4 items, with the exception of the last category/item. [2]Evaluation scale: 1=Superior; 2=Above Average; 3=Average; 4=Below Average; 5=Inferior.		

roles. In addition, reactivity, also referred to as reflexivity (Maxwell, 2005), is "a powerful and

inescapable influence" (p. 109). In the PAR model, reflexivity is an essential component of the research

process (James, et al., 2008). As such, the researcher-participant intentionally designs and implements

interventions with other stakeholders, hoping they will produce desired results and making appropriate

adjustments to increase the likelihood that interventions will be successful.

Five strategies to address validity threats were employed in this study (Cresswell, 2007;

Hansman, 2001; Maxwell, 2005). First, as already noted, I have exposed my bias, thus opening it for

scrutiny. Secondly, my involvement with student participants stretched over a full academic year, which

allowed us to build trust and increased students' comfort in responding honestly to course tasks and

processes. The third strategy involved data collection and analysis methods. Multiple data sources were

included (see Table 2).   The amount of data collected was allowed for detailed and varied description in

response to research questions.   The course design and data collection methods required all

participants to respond. In addition, the data were reviewed many times.   Thus, data were triangulated

across sources and respondents. Fourth, I deliberately used reflexivity to consider students' responses

to activities, developing my ideas about next steps and potential student outcomes. Fifth, in my final

session with students, I solicited students' responses to my research questions to informally assess

whether their observations agreed with my preliminary findings, with comments recorded ex post facto

in my reflective journal. One last form of "respondent validation" (Maxwell, 2005, p. 111) was students'

summative course evaluations completed apart from the instructor, with results provided anonymously

after course completion.

Reliability. Traditionally, reliability refers to whether a study and its findings may be replicated.

However, in the social sciences, human behavior is subject to change, making replication of findings

difficult to achieve. Thus, "the more important question . . . is *whether the results are consistent with*

the data collected" (Merriam, 2009). The connections between this definition of reliability and internal

validity are clear; therefore, many of the same strategies for addressing validity threats also apply to

reliability, detailed in the previous section. In addition, my reflective journal established a record

describing how the study was planned and onducted, strengthening the connection between data and

findings. An abbreviated description or "audit trail" (Merriam, 2009) is included in the data collection

and analysis section.

Findings

Given the amount of collected data, it would have been easy to be drawn into new areas of

investigation. For example, analyzing the discussion threads rather than organizing the data into

previously established codes, using critical discourse methods (Fairclough, 2001), would have provided

an interesting look at power and communication dynamics between participants.   While these tangents

may have proved fruitful, I remained highly interested and committed to answering the exploratory

research questions. Thus, the data was evaluated for its utility in answering the research questions.

How can a graduate student course in participatory action research be designed to promote student

practice of critical leadership capacities?

I deliberately structured the course around experiential approaches I thought would engage

adult learners, believing that teaching participatory action research in a traditional manner would be

counterproductive to helping students build leadership capacity. Others have observed, "It is not easy

to teach action research in the same didactic way as other research methodologies. . . . [It calls for]

lessons and activities to help bridge the gap between theory and practice" (Sankaran, et al., 2007).

Thus, rather than teaching my students about PAR, I wanted to create a Schon-like "practicum" (1987)

for them to learn PAR by doing it. I aimed to promote student participation by using their self-selected

problems of practice as disorienting dilemmas (Mezirow, 1991). I also intended to exploit social learning

contexts in class, online, and at their school sites to help students work through iterative processes of

learning, action, and reflection.

The course was organized in three modules, with the first designed to help students learn about

the PAR model and develop their stakeholder teams. Before starting with PAR, I believed it was

important to surface students' research assumptions, as some had already expressed a preference for

positivist approaches in our first semester. We did this through assigned readings, a small group activity

to compare and contrast the traditional scientific approach to inquiry with PAR, followed by whole

group discussion. I also believed students would have a better understanding of PAR if they read and

analyzed examples of practitioner research. Thus, they collaboratively and independently analyzed PAR

reports using the Logic Model (James, et al., 2008) they would later use to plan their own PAR cycles.

With a more solid understanding of the PAR process, students started on their own projects. We

discussed final PAR proposal requirements to clearly establish standards. Next, they engaged in a

number of in-class and online activities to diagnose the problem of practice they wanted to study and

draft their initial purpose statements and research questions. These activities were scaffolded through

readings and class discussion. Revisions took place following instructor feedback and Critical Friends

review with their peers using instructor-developed protocols.

The second objective of the first module was preparing students to assemble and lead PAR

teams. Collaborative work with other educators is vitally important in school and district leadership,

including PAR work. Thus, session activities were developed to promote students' work with PAR teams,

including reading assignments on planning and communication strategies, self-assessment of their

strengths and challenges in working with teams, and problem solving using scenarios from practice.

Students brainstormed i who they wanted on their PAR teams, participants' roles, and planned their first

meetings. Their reflective journal assignments gave them a space to reflect on PAR team process and

progress.

The second module was a practicum in PAR research methods. Building on what they'd learned

about methods in the previous semester, we discussed the relationship between study purpose,

research questions, and methodology. Students identified existing school data they could use and also

searched for instruments in the research literature they could use or modify. Over several sessions, they

analyzed existing student learning data, looked at exemplars of instruments, and practiced developing

some of their own, including surveys, interviews, observation checklists, student assessments and

protocols for evaluating student work, and anecdotal records. They were required to have three data

sources for purposes of triangulation, which could include up to two existing data sources, plus an

instrument they had modified or created specifically for their projects. PAR team meetings and

reflective journaling continued throughout this module.

The third course module involved development of a comprehensive PAR proposal, integrating

their work throughout the semester. Students developed and revised required sections, including topic

and study purpose; study context, population, and sample; PAR team composition and collaborative

work; literature review; data collection and analysis methods; plans for reporting data; and finally, next

steps for implementing or expanding their study. Prior to submitting their written proposals, students

presented their work in class and received Critical Friends feedback using an instructor-developed

protocol. This enabled them to make revisions before turning in their completed proposals. Their final

assignment was to write a philosophy statement that described their view of educational leadership,

including leadership of school-based inquiry and change.

Though the course design was carefully structured in advance, activities and timelines were

frequently adjusted to accommodate students' interests and needs. My journal entry prior to the first

session shares my aspirations for the course: "I really hope to combine a clear course trajectory and

standards with flexible planning and activities to ensure students' learning. I want their learning to be

meaningful in *their* eyes, not just a course they tick off toward a degree" (personal communication,

January 5, 2009).

What significant challenges emerge for students and instructor in a participatory action research

course?

Students. The intellectual challenge of this course was rated by eight out of nine students on their course evaluations as "superior" (Table 4, M=1.11, SD=0.33). They completed tasks spanning the entire range of Bloom's Taxonomy (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956), with most work focused at higher levels.   Thus, assignments were challenging, but what added complexity was creating and leading a completely new project, involving many unfamiliar tasks. Common challenges expressed by students included uncertainty about how to frame study questions, concerns about methodology, and assuming new roles and working with teams.

Questions about questions. When we first reviewed the PAR proposal requirements, students appeared quite comfortable with the idea. However, as we started to translate the topics they'd begun to investigate the previous semester into purpose statements and research questions, concerns emerged about doing their own research. Of all the challenges that surfaced for students, developing their study focus and questions was both the most widespread and varied in nature. Of the nine students, each verbalized some kind of concern. These included professional capacity, position and power relationships, and school context.

Some found it exciting to explore project possibilities, as described by one: "I feel a bit like a kid in a candy store, having a hard time deciding on which dark chocolate bar to buy today. I'm interested in developing a project on some aspect of how leadership can impact classroom instruction." Two others directly connected with this analogy.   However, most students found developing their study purpose and research questions more stressful than they'd expected. One student expressed this difficulty with self-deprecating humor.

> Holy cow! I should NOT be allowed to begin brainstorming research questions. I am TERRIBLE at it. I just don't know where to stop and when to quit. I only managed to generate about a page of questions that I have surrounding this gigantic topic!

In some cases, PAR teams helped to revise the study purpose and questions, especially in situations where stakeholders had direct responsibility for implementing interventions. About half of the students

preferred to develop the purpose and questions to propose to their PAR teams, believing they would

garner more excitement and commitment from colleagues if they had established the some initial focus.

By the end, about two-thirds of them significantly changed their purpose statements and research

questions.

    Capacity. Anxieties about professional capacity surfaced for some students when they

articulated their problem of practice. Framed within Mezirow's concept of the disorienting dilemma, it

appeared their anxieties provided motivation to undertake their projects. One student described his

concern, resulting in a decision to investigate differentiated instruction in his classroom.

> I find myself struggling with the question of how to teach a curriculum that is geared
> toward average achieving students . . . . In a classroom of almost thirty students, where
> the curriculum is becoming increasingly difficult and we have less time to spend on each
> subject, how can I ensure I am meeting the needs of all my students to ensure their
> success?

For another, describing the problem of practice resulted in frank, painful confrontation of his feelings

about teaching and student failure:

> I have concerns that what I'm teaching isn't necessarily what I SHOULD be teaching. I
> know the curriculum is in place, and I know that everyone has signed off on it, but there
> is so little oversight with regard to assessments, data, and student outcomes, that I'm
> just a tad insecure in what I construct on any given day.
>
> I have concerns that I should be doing more for ALL kids. The reality is that kids always
> have and currently do find ways to fail my class. I take this failure personally, but I am
> unwilling to go to the lengths necessary to make these young adults pass. I'm also
> convinced that I don't currently possess the necessary tools to help some of these
> extreme cases. I don't think I can care for those kids at the extreme end of one
> spectrum without neglecting those students at the extreme end of the other spectrum.

His reflection ended, not with a focused question, but a new resolve to motivate his work: "I want to

change the way we think of addressing the causes of student failure. "

    The need to develop specialized skills was an issue for another student. Trained in Cognitive

Coaching, she wanted to study its effects on teacher performance and student outcomes. After some

experimentation, she recognized she did not have sufficient skills to do the study as planned, so shifted

her purpose and questions toward building her own capacity first, working closely with an individual

teacher for their mutual benefit.

Position and power relationships. Two students particularly struggled with how to define their

study purpose, locus, and unit of analyses. One of them was deeply interested in social justice. While

he aspired to a leadership position and wanted to explore leading schools for social justice, he believed

he would be more involved as a study participant within his teaching practice. He thus changed his

focus to exploring "How (or if) I am engaging in social justice teaching in my classroom," hoping this

experience would help inform his future work as a principal. Another student, responding to the first

student via our discussion board, noted

> I feel that it has been difficult to nail down a practical topic that will improve practice.
> At first I had more esoteric questions about leadership [but] I, like you, have been
> thinking I should shift my attention . . . to classroom practice.

Students also wanted their projects to positively influence other adults, but had some

trepidation about how to accomplish this. One stated he hoped to get teachers across the district at his

grade level involved eventually, but was concerned about "stepping out of bounds" from his classroom

across school lines. Another student tentatively explored issues of school security starting with his

elementary school, only putting out feelers about secondary school security when his principal and

other administrators signaled their support. Others discussed power relationships within their schools,

not wanting to upset the status quo or make it appear that educators were not doing their jobs

properly. For example, one student worked in a building with a new principal. He believed the new

principal was defensive and worried about how teachers perceived him. Thus, the student believed he

needed to be extremely careful about how he framed his study.

School context issues. Concerns about upsetting power relationships were also reflected more

broadly in frustrations that surfaced about professional culture, leadership, and other contextual issues.

One teacher appeared to have a clear study focus, having started on it earlier in response to state and

district mandates, only to have problems surface over teacher buy-in and participation. Teacher and

administrator apathy surfaced in other situations. One student, despite invitations to building

administrators to attend PAR team meetings, even occasionally, was politely turned down by each,

though he was given administrative clearance to conduct his study. Another student expressed

frustration about getting meaningful teacher participation, as his school had been through recent

reforms, none of which were sustained very long. Another cited financial woes in the district and the

dampening effect of "our superintendent's doomsday scenario" on enthusiasm, saying "as a result of

low morale, I'm finding my effectiveness as a motivator is being challenged."

Finally, one student reported, "I want to be sure that my motives and belief fit the culture and

environment before going too deep," reflecting many students' concerns about their relative position,

vulnerability within the system, and initiating potential change. As one student put it, "Questioning

something within a school in hopes to improve it can feel like you are putting yourself out on a limb all

alone."

Concerns about project design and methodology. Out of 1125 pieces of coded data, the 189

data points in the PAR Project Design family represents a predictable range of research tasks. Firming

up their study purpose and questions relieved students' initial concerns. One student noted his revised

purpose and question "better addresses the missed concepts and is a lot more focused . . . . I have a lot

of doubts about how I would measure this . . . but I am more excited about actually making it work. "

Some students also discovered they had to further refine their questions as they began to think about

measurement.

> My two biggest concerns are narrowing down the specific student outcomes I wish to
> measure, and the best ways to measure/analyze those outcomes. I want to reevaluate
> my research question and determine a focus for the student academic achievement I
> (and my team) truly want to measure.

In addition, getting to the action and measurement stages brought financial and time constraints into

sharp focus. The student planning to study 1:1 laptop integration had to scale back her plans due to

district budget deficits. Another student investigating school security recognized he had to consider

"cost neutral" interventions for financial reasons.

Finding or designing good assessments to measure intervention outcomes was also a significant

challenge. As we reviewed assessment principles, students shared concerns about developing

appropriate assessments in class and over the discussion board. Four students found research-based

assessments they could adopt or modify. Developing their own tools presented interesting challenges,

as well. Regardless of whether they planned to use each tool in their studies, I required everyone to

experiment with developing survey questions, interview questions, and observation protocols, wanting

them to have the experience for future projects. Seven students posted comments about how much

they'd learned about data collection methods by constructing their own. In my journal following our in-

class session using a Critical Friends protocol to provide feedback to students on their draft survey

questions, I noted

> It's fascinating to see how students are responding to developing their own data
> collection tools. Where they have previously paid lip service—and in a couple of cases,
> perhaps displayed a little arrogance—regarding the difficulty of designing good
> assessments and data collection tools, having them go through the Critical Friends
> process, where others are critiquing their tools, has been a huge eye-opener for them.
> T. commented 'I was certain that I had great questions when I came in tonight. Now I
> realize how much I'd underestimated how hard it is to write good survey questions that
> are clear and as bias-free as possible.' They're really starting to see how 'critical' it is to
> have Critical Friends to improve their work (personal communication, March 4, 2009).

Nearly every student also wrangled with the amount of time their interventions and data

collection would require of teachers and other stakeholders. One student summed up his concerns,

saying

> I am starting to wonder if I should be focusing on one specific part of the research. . . .
> Would it be too much to ask the PAR team to work at two different groups? . . . This is a
> large enough process as it is, and what I do not want happening is for my PAR team to

> have so much information to look at that they get bogged down. There is so little time
> for teachers to improve practice while teaching their already immense curriculum. I
> wonder if I am asking too much on top of it. On the other hand, if we truly want to
> improve schools and our teaching, then data like this is essential to determine best
> practices. I think I will address both aspects of my research with my PAR team and see
> how they feel about it.

While daunting for some, formalizing data collection tools and procedures posed new

opportunities for work existing teams were already doing. A student working on RTI

implementation in his middle school noted, "The nice piece of this project is the idea that we

are creating documents that can put these observations into a more formal construct." Prior to

this, there was no formalized tool used by teachers when they referred students for

intervention. He asserted, "[We need to be] using observation like a researcher [where] every

invested individual needs to develop a common understanding of what we're talking about. It's

like having a common rubric for assessing writing across classrooms."

Finally, data analysis provoked consternation for a few students. We had an early data analysis

workshop in class, but not all students felt comfortable with completing the data analysis, especially for

qualitative data. As a result, I put together a document to guide their work. For other students, the task

of data analysis was less of a concern than how to handle what they might discover.

> Personally, this is a tricky piece of my PAR project. Because we might be dealing with
> some psychological issues-abuse, depression, neglect-confidentiality and trust will be
> huge factors in identifying the various causes for self sabotage. It is unusual to see this
> type research being done within schools.

One student in particular was jarred into acknowledging potential bias in analyzing his data.   In

response to a peer, who wrote about staying "nimble and responsive to the data," he responded, "I

especially like how you're always staying open to whatever the data suggests. I'm not sure I'm currently

open to the idea that my data might actually say something DIFFERENT than what I'm expecting. Thanks

for the researcher reminder."

Assuming new roles and working with teams. Leading PAR projects presented challenges that were new to most, including recruiting PAR team members, deciding on roles and contributions, and team planning.

Recruiting PAR team members. Students brainstormed potential team members in advance. For a couple of students with projects situated in schools with established professional learning communities, gaining participation was not hard. Two students also worked in private religious high schools, reporting collaborative work was very common in their small schools. However, others found getting stakeholders involved was more difficult. One student, reflecting on his efforts to involve others commented, "I think a potential challenge to me as a practitioner-researcher is to figure out how to persuade people that this research can be to their interest as well, and to draw them into the process. " For students wanting to involve parents, confidentiality issues led them to decide against involving parents in at least some meetings. Fortunately, students found PAR team allies in places they hadn't originally anticipated: one student found an early childhood faculty member who agreed to work with her team, another student involved high school security staff, and a third found a school counselor who was delighted to assist with his project.

Team roles and contributions. Questions about team roles and contributions centered on what kind of participation to seek, how much, and what approach students should use as team leaders. One student reflected group work posed one of his "largest challenges," focused as he'd been on tasks: "Right now I'm trying to slow down, meet with the essential people who will help this program evolve, and allow everyone involved to share in the dialogue and construction of the process." Another student questioned how much input to allow PAR members, asking, "Do I let the course of my PAR project change considerably to assist in creating buy-in, so my teammates will feel this is as much their project as mine? I almost feel like that is part of the PAR process."

While over half of the group wrote about wanting team members to "buy in" and "feel committed"

to the work, they didn't all use the same language to describe this concept. This may have been partially due

to their relative inexperience in leadership roles, especially of a PAR group. Thus, they struggled with what

meaningful engagement looked like and how to encourage members to share in the work.

> I have to confess that my PAR team has been helpful at times, but I feel that most of the
> labor of this project is being handled by me. Is that OK? While part of this may be due to
> my leadership style and all of our busy schedules, the truth remains. My PAR team
> appreciates being in the loop, and they love progress reports, and they're excited about
> where we're heading, but they almost all are sitting in the back of the seat watching me
> drive the bus.

One student remarked, "I have a lot more empathy for what my principal goes through on school

improvement. While I think there are better ways for getting people involved, I have a better sense for

what he's up against."

Team planning and time management. Students consistently described the importance of

planning meetings in advance and ensuring productive use of time. They expressed concern about

asking PAR team members to contribute their time and talents given their other professional

responsibilities. This was a focal concern that went further than just the PAR work, as summarized by

one student:

> About my PAR project, I am always concerned and feel it is important to be careful
> about adding more to anyone's already full plates in schools.   I know this type of
> project makes great sense. I know we are in dire need of structuring ways for teachers
> to collaborate with one another, and build capacity among them.   I also do not see one
> thing being taken off their plates. . . . I'm not suggesting we not do PAR projects but
> what I am suggesting is we figure out how to give teacher consistent time during the
> work day to collaborate, and engage in meaningful PD such as PAR projects.

Thus, in working with PAR teams, students faced some of the same issues educational leaders routinely

address in their daily work.

Instructor. The challenges this course presented were twofold: 1) making sure I was doing the

"right things" in planning the course, and 2) responding to students' learning needs as effectively as

possible. My inexperience in teaching practitioner research added a layer of uncertainty. I hoped above

all that the course would be a fruitful learning experience for everyone involved.

By investing time designing the course, I addressed initial concerns about course design. The

next and more critical task was to facilitate student learning and completion of their PAR proposals. The

diversity of students' professional roles, contexts, and research interests stretched my ability to respond

effectively to their questions and needs. I felt lucky to have only nine students. Designing lessons for

the group that could be adapted for individual needs—the task of every teacher—took on added

meaning, as students were learning new ideas, creating and implementing vastly different projects, and

leading teams simultaneously. Their questions spurred me to mull through their experiences, consult

the research literature, find or develop new resources, and leverage the growing capacity of the group.

My journal helped me explore emerging issues and consider how to respond.

Overall, I felt great responsibility for ensuring students got what they needed to accomplish two

things: to have a meaningful experience leading inquiry in their schools and to successfully complete

their PAR proposals.   As typical, the range of student experience and capacity was wide. Three ways I

tried to facilitate their work included 1) providing clear performance standards, while giving as much

technical assistance as possible; 2) creating the conditions for them to direct their own projects, with

appropriate flexibility on tasks and timelines; and 3) providing frequent formative feedback at various

stages of their proposal development.

What are critical student outcomes in a participatory action research course? How might student

outcomes be improved?

The formal course evaluation data represents broad student outcomes. The most pertinent

data is students' responses to "Improvement in your competence in this area due to this course." Eight

students rated their improvement as "superior," while one rated his/her improvement as "average"

(M=1.22; SD=0.66). Thus, most believed they had greatly increased their competence in course-related

content. The lowest and most variable student ratings were on engagement ("interest in learning

course material" M=1.67; SD=0.81; and "general attentiveness in class," M=1.44; SD=0.74). Finally,

most students reported their course enjoyment was "superior" (M=1.22; SD=0.66).

However, the course evaluation data provides little evidence in two important areas: explaining

the increases in specific domains of student competency increase and the greater variability in student

engagement ratings. While the qualitative data provides a much richer understanding of critical student

outcomes, it does not explain the quantitative variability in student engagement, particularly given

higher ratings in the areas of improved competency and course enjoyment. I might suggest student

interest in most courses is variable and attentiveness is not easy to maintain following busy school days,

but this would be speculative. Further research might account for student variance in these areas and

investigate additional ways to maximize interest and attentiveness.

What the qualitative data does provide is greater understanding of critical student outcomes.

Significant student outcomes included increased student capacities for 1) understanding, using, and

conducting research; 2) using PAR to promote collaboration, school improvement and professional

development; and 3) enacting leadership for inquiry and change.

Understanding, using, and conducting research. Students demonstrated an improved

command of research in several ways, suggesting a synergistic relationship between the previous

semester and this one. Seven students wrote about their increased confidence in comprehending and

using academic research. One student remarked

> Now that I've learned some of the significant aspects of academic research, I consider
> myself a confident and competent consumer of research. . . . [And] now that this
> experience is concluding . . . I can conduct efficient and effective research to learn
> answers to the issues that are most vexing.

Six students discussed the interdependence of scholarly and practitioner research, appreciating the

value they hold for one another. In one student's words, "PAR incorporates academic research through

literature reviews which establish the validity and direction of the PAR project," while scholarly research

needs PAR "to test how research-based interventions work" in local practice.

Whether in discussion or writing, most students described their increased efficacy for leading

school-based inquiry.   One student wrote in her final reflection, "I can see the value and learning that

happened for me during the process of developing this PAR project.   I'm excited to be at this point in

the process and be able to say, "I understand the PAR process."   Another commented, "It's not scary,

and it should be the basic foundation for our professional future."   My journal following the last class

noted, "What a reward to see their pride and jubilation. They feel as though they've 'gotten PAR' and

understand what they might be able to accomplish in their schools through PAR" (personal

communication, April 29, 2009).

Using PAR to promote collaboration, school improvement and professional development.

While students seemed to view academic research as a product they could consume to learn about

promising interventions, their comments about PAR nearly always referred to it as a process or vehicle

that could help them do important work. Students' PAR reflections demonstrated their appreciation for

its value in specific school-related domains. Most commented on its power for improving collaboration.

One student observed

> Others are more likely to listen to a team compared to an individual. The PAR process is
> challenging but effective at bringing about research based decisions and change based
> on quality teamwork. What I have learned most is that the PAR process is capable of
> bringing collaboration into the forefront of creating change, supporting change, and
> sustaining change.   I've seen it work for my team.

Another stated, "I am amazed at myself and at the quality collaboration that this PAR process brings

about." Others had experienced more modest collaboration, one of whom wistfully noted, "Maybe as

time goes on with my project, other teachers will want to get involved once they see the results."

Students also made strong connections between PAR, school improvement, and professional

development. Their discussion board threads and reflective journals ruefully recounted the opportunity

costs involved in poorly led school improvement and professional development, problems they

described as "horror stories," and "a major issue among teachers, causing much despair and reticence to

really engage in any sort of process, no matter how worthwhile."   One stated school improvement work

"always felt like you were spinning your wheels."

Students stated they believed PAR work was more worthwhile than most other school

improvement or professional development they'd experienced.   One was quick to note,

> I don't think the work associated with PAR is easier, but it's definitely smarter. With all
> of the school improvement models that schools can adopt, it seems silly to ignore the
> authentic voices of teacher leaders employed right at home in the district.

In fact, two students from a district that mandated participation in professional learning communities

(PLCs) described the aims of PLCs and PAR in very similar terms.   They thought the mandate for PLCs

was somewhat contradictory to their purpose, but reported it had established a great foundation for

their PAR work. One of them wrote, "PAR has the potential for being one of the most powerful forms of

PD there is, because it engages teachers and other stakeholders . . . rather than feeding information to

them and hoping they'll do something with it."   Others lauded PAR's potential for empowering teachers,

giving them "a strong voice when often we feel we have none."   Simply put, one student affirmed, "It is

real and happens where we live."

Enacting leadership for inquiry and change. Designing and leading PAR development afforded

students significant opportunities to envision, practice, and reflect on their leadership skills. It was

fascinating to see that when discussing their projects, they most often described the work they did with

others, accomplishing "so much more by discussing and collaborating with the team than I would have if

I worked on this alone." They talked about PAR as an opportunity to "contemplate all sides," as a

"method for principals to develop and nurture shared leadership," a way for "teachers to take

ownership and explore their own practice," and a means to "build leadership capacity among teachers."

One student remarked he learned "to allow others to define their role, play their role, and celebrate

their role" in PAR work. He described his expanded concept of an effective school leader as one who

"builds the leadership skills of teachers . . . who will lead projects and initiatives in the school."

When describing their leadership as a capacity they were working to develop, they reported

their activities in individual terms. Within course activities, students envisioned how they would handle

various PAR phases and challenges. Students' final reflections summarized what they learned by

leading. They described how they "provided a framework for helping stakeholders to discuss shared

problems," using "good listening and communication skills, research, problem solving, and planning

actions and measurements to move the project forward."   Thus, within the practicum environment,

they rehearsed leadership tasks and processes, implemented and adjusted their plans at school, and

returned to reflection within the practicum setting. One student referred to her PAR work was "sort of

like a leadership pilot project."

While the course required PAR proposal development rather than a full-fledged study, students

reported observable outcomes by semester's end. One student planning to measure student outcomes

following a study skills class reported greater teacher interest in applying study skills in content classes

and increased student interest in enrolling in her class. As part of a Title I review, one student was

queried about action research practices in the school and described her team project, which helped

validate the importance of her study to local educators participating in the review. One student who

was actively collecting student data on RTI in his middle school reported some modest increases in

students' math performance. Another student began to receive e-mails from teachers in other schools

about how he planned to differentiate homework menus in his study. Students were also garnering

notice from administrative staff. Two students were requested to do School Board presentations on

their work.

Thus, the course experience affected both how students saw themselves and how others

viewed them. One student wrote

> During the PAR project I have grown as an individual and as a future educational leader. Based on what I have learned last semester and this semester, I now feel much more confident in my ability to read and understand a research study, and in my abilities to conduct a research project. This knowledge is essential to me as a future leader who will base the implementation of teaching innovations on research that proves their effectiveness.

Another student spoke about how the experience built his "credibility" with his colleagues, saying, "I've enjoyed playing the role of leader among these other professionals. I've loved being the voice of the PAR process and the designer of our program. I found that these individuals began to see me differently than before." All the students reported they'd benefitted from their course experiences with PAR. One student wrote, "actually developing my own PAR proposal to implement at my school was extremely beneficial for me," while another remarked, "I haven't even begun to appreciate the full scope of all I've learned as a result of this project."

Finally, evaluation of students' progress on course assignments throughout the semester revealed significant gains in student application of PAR concepts. All of the final projects met course standards, ranging from satisfactory to exemplary work.

Using student outcome data to improve the course. Despite positive outcomes reported by students, the course could be improved in several ways. The feedback I received through discussion boards on reading assignments has helped me weed out and replace less effective assignments. The final assignment also needs improvement so students have a greater degree of success with it. This assignment required them to write a philosophy of leadership for school-based inquiry, and was not well understood or completed effectively by half of the students. My intention was to help them pull together their reflections on leadership of inquiry, putting it in a document to include in their leadership portfolios. Hence, this might have assisted them in preparing to search and interview for leadership positions. I did not provide a model or scaffold for this assignment, hoping to avoid receiving thinly disguised regurgitations about leadership of inquiry. They asked for clarification; thinking they had

prior experience with writing a philosophy statement for their teacher portfolios, I drew an analogy

between writing a teaching philosophy and this assignment. It turned out the majority hadn't done

teaching philosophy statements or teaching portfolios, nor had most prepared leadership portfolios.

Thus, it was a missed opportunity, which I will need to scaffold more deliberately in the future.

Another issue is how to incorporate data analysis instruction in the course. The data workshop I

did with them, using their baseline data to practice data analysis skills, was insufficient for some

students. Moreover, some had difficulty applying what they learned about data analysis during the

previous semester to their PAR data. As a critical strand running through leadership preparation

courses, it makes sense to talk with program coordinators and course instructors about previous

coursework involving data analysis, so that I can address it more effectively in this course.

Finally, I have concerns about students making school-based inquiry part of their educational

practice now that they've completed the PAR course. Given their concerns about teacher time,

competing demands, and having seen how new leaders get overwhelmed with other responsibilities, it

may be important to have them address strategies for embedding inquiry in practice. Collaboratively

brainstorming ways to institutionalize inquiry-based practices may help them apply these practices

when they assume formal leadership positions.

Discussion and Conclusions

It is important to note study limitations prior to discussing conclusions. This study was based on

a small student sample, likely affected by other program and contextual factors. Most students were

taking the course at the end of their MA or EdS programs. Student outcomes may also have been

influenced by our work together over two semesters. In addition, the study did not directly measure

leadership capacities, how they changed, to what extent, and which course elements were most

strongly correlated to improvements in students' leadership capacities. Further research is needed to

explore these relationships and to elaborate whether and how students are applying PAR methods in

their current practice.

Nonetheless, the findings suggest helpful practices for educational leadership preparation for

participatory action research, particularly when combined with existing literature. Considered broadly,

study findings and related literature affirms the value of aligning coursework to adult learning principles,

conducted in a practicum organized to promote learning, action, and reflection (Avgitidou, 2009; Grant,

2007; Greenwood, 2007; Levin & Martin, 2007; J. M. Peters & Gray, 2007; Sankaran, et al., 2007; Szabo,

2004; Taylor & Pettit, 2007). Specific recommended practices include elements of program design,

course design, work with students, and professional reflection.

Program Design

Implement a cohort model. Cohort-based programs bear advantages for using socially

constructed learning processes in a practicum environment. Students in this study found their Critical

Friends groups to be invaluable in improving their work, a finding suggested by other studies (Szabo,

2004; van Swet, Smit, Corvers, & van Dijk, 2009). Students stated the Critical Friends work would have

been less effective outside of their cohort, which enabled them to build trust over time (personal

communication, April 29, 2009).

Articulate data analysis through multiple courses. Students may benefit from more

comprehensive instruction in data analysis (Clark & Clark, 1996; Levine, 2005).   Repeated practice

through multiple courses may help increase their skill application to new situations. This merits faculty

collaboration to examine ways to improve students' data analysis skills. Applying PAR methods to

program development may also lead to improved faculty collaboration and student outcomes in other

areas (Margolin, 2007).

Establish a basic research methods course as a prerequisite for participatory action research.

Students repeatedly emphasized how their understanding of research methods helped them design

their PAR projects. Taylor and Pettit observed teaching research methods while also teaching action

research was much more demanding and time-consuming than they had anticipated (2007). When

students have a solid foundation in research methods, they are better prepared to develop their own

PAR proposals.

Course Design

        Create a course practicum using constructivist learning activities. Many theorists assert action

research is learned through iterative cycles of action and reflection (Grant, 2007; Greenwood, 2007;

Peters & Gray, 2007; Sankaran, et al., 2007; Szabo, 2004; Taylor & Pettit, 2007) rather than traditional

methods of teaching research courses.   Levin and Martin emphasize, "*Engage students* in explicit cycles

of practical action and reflection," and "*Insist on socially relevant field work* that requires the

development of action-oriented skills in the field" (2007, p. 226).

        Implement action research models flexibly. This course was appreciably strengthened through

use of the PAR model and text (James, et al., 2008). However, using action research models inflexibly

may inhibit student progress. Grant warns of the "isomorphic" effects of using "prescriptive

'cookbook'frameworks" (2007, pp. 266-267).

        Use social learning contexts and processes to promote student learning. The cohort model

provides great opportunities for collaboration, but it needs to be exploited effectively. Class sessions

were used to promote collegial discourse and problem-solving, provoking one student to comment, "I

am very proud to be a member of this group. You all help me think at a deeper level and work at a

higher one." Students' PAR teams and work in Critical Friends groups also improved students' work.

Processes for implementing Critical Friendship are recommended by van Swet and colleagues (2009).

        Include reflection as a central component in coursework. Reflection is an essential element of

participatory action research (Grant, 2007; Greenwood, 2007; James, et al., 2009; Peters & Gray, 2007;

Sankaran, et al., 2007; Szabo, 2004; Taylor & Pettit, 2007) and should be taught, modeled, and

incorporated in course assignments (Beisser & Connor, 2004). Reflection also reorients students when

they get caught up in action or lost in the weeds of data analysis (Taylor & Pettit, 2007).

Design activites to translate theory into practice. A variety of learning activites can help

students apply what they are learning throughout the research phases. These include modeling and

guided practice (Szabo, 2004), group discussion, written assignments and reflections.

Surface general assumptions about research early in the course. Students had biases that may

have inhibited their involvement with PAR, a finding also noted by Greenwood, who reported students

tend to have "a positivist image of what is legitimate social science" (2007, p. 256). A substantive

discussion of traditional and participatory action research addresses philosophical conflicts that help

students engage more productively in PAR work.

Include content to help students anticipate uncertainty and confusion. Students need to hear

the research process is built on unanswered questions that need to be framed effectively, which is

difficult even for seasoned researchers. However, it is also important to recognize the differences

between "productive vs. erosive discomfort" (Szabo, 2004, p. 73) and help students work through

related issues.

Emphasize both process and product in coursework. The process of learning participatory

action research is demanding. I found it most helpful to focus students on development of a quality PAR

proposal, including reflection, rather than having them deliver a completed project report. The practice

of having them turn in drafts of proposal components provided students with formative feedback to use

in improving their work, thus honoring both process and product. Levin and Martin assert, "We must

hold the values of experiential learning, reflective practice and transformational learning on the one

hand and, on the other hand, insist on written work of a quality to influence scientific thinking" (2007, p.

226).

Give careful consideration to scheduling and planning for class and online sessions. Other

researchers have reported the challenges of teaching action research online (Aune, 2002; Sankaran, et

al., 2007). I found the hybrid model of both inclass and online sessions an enjoyable and productive way

to engage students in PAR work, but found some work more suited to in class sessions (i.e., Critical

Friends work), while online sessions sometimes resulted in more substantive contributions from quieter

students and deepened dialog between students.

Work with Students

Take time to build relationships with students. Positive relationships facilitate students'

willingness to work outside their comfort zones and accept guidance. Szabo observes leadership is

"grounded in relationships" and relationships with and between students should be "the instructor's

highest priority" (2004, p. 72).

Encourage and reframe experiences. Frustration and discouragement can facilitate students'

"self-awareness . . . to further development and knowledge" (Grant, 2007, p. 270). I helped students

reframe many experiences as "building capacity for future leadership practice" and directly called their

attention to instances when they were demonstrating effective leadership. This may also help students

prepare for the transition to formal leadership roles (Browne-Ferrigno & Muth, 2004).

Professional Reflection

Finally, as we promote reflection to improve participatory action research practice, instructors

benefit from reflection on course design, student work, and outcomes (Taylor & Pettit, 2007). I have

learned a great deal through this study, which I believe will improve my practice. It has elevated my

understanding of teaching and learning as an important, reciprocal endeavor.

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